

MF LSUMMENT

U-73999 (UT-023)

CERTIFIED MAIL NUMBER Z 286 254 361 RETURN RECEIPT REQUESTED

Mr. William D. Moeller Clifton Mining Company 70 West Canyon Crest Road, Suite D Alpine, UT 84004

Dear Mr. Moeller:

On October 10, 1996, we received information requested by this office in support of your Plan of Operations for milling at your Cactus Millsite in T. 7 S., R. 18 W., Section 35.

This office has been preparing an Environmental Assessment (EA) for your proposed activities. In a review of your proposed milling activities, it became apparent that there is still some information that must be provided before your operation can be approved.

As stated in the Bureau of Land Management's (BLM) Acid Rock Drainage Policy for mining activity authorized under 43 CFR 3809 and 3802 (Instruction Memorandum UT 96-58, dated June 21, 1996), the BLM is required to make a determination whether a proposed mining operation has the potential to generate acid rock drainage (ARD).

Because of the type of rock known to occur in the Gold Hill area, including sulfide ores, and ores of pyrite and arsenopyrite, we believe that there is a potential that your operation may generate ARD. ARD is caused by the oxidation of sulfide minerals which produce sulfuric acid, sulfate salts, metals, and heat.

The low pH effluent associated with this reaction can liberate metals and result in a variety of associated environmental problems including severe reductions in surface and ground water quality, loss of fishery habitats in receiving streams, failure of revegetation efforts in areas covered with toxic materials, and die-off of existing vegetation.

Before your Plan of Operations can be approved, we request that you provide this office with the following information:

1. You must provide the BLM with preliminary waste characterization and mitigation information of the mill site area in order to evaluate the proposed operation and reclamation plan.

Preliminary waste characterization involves the evaluation of waste rock units at the site. The general geologic relationships, waste rock lithology, mineralogy and alteration, sulfide morphology and distribution, distribution of rock units with the potential to neutralize acid production (i.e. carbonate rocks), baseline hydrology, and physical waste rock and material properties must be provided by the operator.

Advanced waste characterization may be necessary if the site characterization work has identified a potential ARD problem.

This preliminary waste characterization should include the submittal of a static predictive test for acid rock drainage. Static tests are a fairly quick and inexpensive preliminary determination of the potential for acid production. Static tests attempt to predict acid producing potential based on the acid generating and acid neutralizing mineral present in the sample.

The static test must be made by a lab qualified for this type of procedure, and must include the following "suite" of tests: electrical conductivity (inherent salinity); paste pH (inherent acidity or alkalinity); Acid Base Accounting, including total sulphur as a weight percentage, sulfate or sulfide sulfur as a weight percentage, and acid neutralizing potential.

2. Materials identified as potentially acid-forming will require development of control, treatment, monitoring, and reclamation measures to mitigate the impacts of acid-rock drainage so as to prevent unnecessary or undue degradation of public lands. This characterization must be based on the physical and geochemical properties of the mine material and the site-specific environmental conditions.

If ARD is predicted from the sampling, ARD prediction must be fully integrated with operational procedures, facility design, and environmental monitoring programs throughout the project life.

- 3. If the initial waste characterization confirms the potential for ARD, the operator must provide mitigation measures to prevent or control ARD. If the BLM does not agree that the mitigation measures will prevent or control ARD, the authorized officer will request a modification of the Plan of Operations to include appropriate measures.
- 4. Proposed reclamation measures must assure successful final reclamation and be adequate to prevent unnecessary or undue degradation that may result from ARD.
- 5. We have concerns regarding the potential volume(s) of material that may be produced in the future by your milling activities. Your Plan of Operations states that you intend to process 500 tons of material per day. Presuming a 300 day per year operation, this would generate in excess of 150,000 tons of tailings per year. Assuming a tonnage factor of about 2.25 tons per cubic yard, you are proposing to create more than 66,667 cubic yards of waste per year. If your tailings impoundment was 12 foot high, this would require an area of at least 3.44 acres per year for tailings.

Provide an accurate map showing how and where you intend to store this volume of tailings during the life of your proposed operation.

Please provide the requested information within 30 days of receipt of this letter, or we will consider your Plan of Operations to be withdrawn, and will expect the site to be reclaimed to the standards described at 43 CFR 3809.

If you have any questions, or require additional information, please feel free to contact Michael Ford of my staff at (801) 977-4360.

Sincerely,

rs, Margaret Wyatt

Area Manager